In the claims:

Please cancel claim 7 without prejudice.

Please amend the following claims:

1. (amended) A method for generating mammalian neural crest stem cells comprising:

(a) isolating a pure, homogeneous population of mammalian neuroepithelial stem cells derived from the neural tube from a mammalian embryo at a stage of embryonic development after closure of the neural tube by:

(i) removing a sample of neural tube tissue from a mammal at a stage of embryonic development after closure of the neural tube;

(ii) dissociating cells comprising the sample of neural tube tissue removed from the mammal; and

(iii) plating the dissociated cells in feeder-independent culture on a substratum and in a media comprising fibroblast growth factor and chick embryo extract; and

(b) inducing the isolated, pure, homogeneous population of neuroepithelial stem cells to differentiate *in vitro* by replating the isolated, pure, homogeneous population of neuroepithelial stem cells on laminin-coated substrate, withdrawing fibroblast growth factor or chick embryo extract from the isolated, pure, homogeneous

population of neuroepithelial stem cells, or adding a dorsalizing agent to the isolated, pure, homogeneous population of neuroepithelial stem cells, thereby generating said neural crest stem cells.

6. (amended) The method of claim 1 wherein said inducing comprises withdrawing FGF.

Please add the following new claim:

--15. A method for generating rat neural crest stem cells comprising:

(a) isolating a pure, homogeneous population of rat neuroepithelial stem cells derived from the neural tube from a rat embryo at a stage of embryonic development after closure of the neural tube by:

(i) removing a sample of neural tube tissue from a rat at a stage of embryonic development after closure of the neural tube;

(ii) dissociating cells comprising the sample of neural tube tissue removed from the rat; and

(iii) plating the dissociated cells in feeder-independent culture on a substratum and in a media comprising fibroblast growth factor and chick embryo extract; and